What is claimed is:

1. A hybrid lens comprising:

a spherical lens; and

an aspherical lens formed of plastic on at least one surface of the spherical lens.

2. The hybrid lens of claim 1, wherein the aspherical lens is formed on at least one of an incidence surface and an emission surface of the spherical lens.

3. The hybrid lens of claim 1, wherein the spherical lens is formed of glass.

4. The hybrid lens of claim 1, wherein the spherical lens has a refractive index within a range of 1.45 – 1.95.

5. The hybrid lens of claim 1, wherein the aspherical lens has a refractive index within a range of 1.45 – 1.8.

6. The hybrid lens of claim 1, wherein the spherical lens and the aspherical lens have different refractive indexes.

7. The hybrid lens of claim 1, wherein when **c** is a surface curvature (an inverse function of radius), $\boldsymbol{\rho}$ is a position on an optical surface in radial coordinates, **k** is a conic constant, and $\boldsymbol{\alpha}_i$ is a polynominal coefficient

defining the deviation from a spherical surface, a lens surface **z** of the aspherical lens satisfies the equation:

$$z = \frac{c.\rho^2}{1 + \sqrt{1 - (1+k).c^2.\rho^2}} + \sum_{i=2}^{7} a_i.^{2i}\ .$$

8. A projection optical system comprising a hybrid lens that is positioned along an optical path between a fluorescent surface and a screen onto which light emitted from the fluorescent surface is projected to form an image and includes a spherical lens and an aspherical lens formed of plastic on at least one surface of the spherical lens.

9. The projection optical system of claim 8, wherein the aspherical lens is formed on at least one of an incidence surface and an emission surface of the spherical lens.

10. The projection optical system of claim 8, wherein the spherical lens is formed of glass.

11. The projection optical system of claim 8, wherein the spherical lens has a refractive index within a range of 1.45 – 1.95.

12. The projection optical system of claim 8, wherein the aspherical lens has a refractive index within a range of 1.45 – 1.8.

13. The projection optical system of claim 8, wherein the spherical lens and the aspherical lens have different refractive indexes.

14. The projection optical system of claim 8, wherein when **c** is a surface curvature (an inverse function of radius), $\boldsymbol{\rho}$ is a position on an optical surface in radial coordinates, **k** is a conic constant, and $\boldsymbol{\alpha_i}$ is a polynominal coefficient defining the deviation from a spherical surface, a lens surface **z** of the aspherical lens satisfies the equation:

$$z = \frac{c.\rho^2}{1+\sqrt{1-(1+k).c^2.\rho^2}} + \sum_{i=2}^{7} a_i .^{2i} \ .$$

15. The projection optical system of claim 8, further comprising a protective lens that covers the entire fluorescent surface.

16. The projection optical system of claim 15, further comprising a meniscus lens that is positioned along an optical path between the protective lens and the hybrid lens.

17. The projection optical system of claim 16, further comprising a cooling liquid that is positioned between the protective lens and the meniscus lens.

18. The projection optical system of claim 8, wherein the hybrid lens is a correction power lens.

19. The projection optical system of claim 8, further comprising at least one correction power lens that is positioned between the hybrid lens and the fluorescent surface, and refracts incident light.

20. The projection optical system of claim 19, wherein the correction power lens has an aspherical surface.